Further investigation of intensified MMF dosing adjusted for body weight with trough level monitoring for the prevention of aGVHD in CBT recipients is strongly indicated.

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PROSE Treatment in Ocular Graft Versus Host Disease; A Five Year Follow-up

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Purpose: To determine the impact of Prosthetic Replacement of the Ocular Surface Ecosystem (PROSE) treatment at five years in patients with Ocular Graft versus Host Disease (oGVHD).

Methods: All oGVHD patients seen in consultation for PROSE treatment from 1/1/2008 – 6/30/2008 were identified through billing records. Retrospective review of medical records, manufacturing data, and 5 year quality data was undertaken.

Results: This 2008 oGVHD cohort was comprised of 21 patients. As of July 2013, the conclusion of the follow-up period, 6 patients were deceased and excluded from subsequent analysis. One patient was not a candidate for PROSE treatment due to not completing the training process, leaving 14 patients who were dispensed devices. After five years, continued device wear was confirmed in 10 of these 14 (71%) patients. Discontinuation of wear was confirmed in 3/14 (21%) patients. We could not ascertain wearing statusin the remaining 1 (7%) patients. Likelihood of continued device wear at five years is not dependent on age, sex, general health status or proximity of residence to our clinic ($p>0.05$, for each mean, by unpaired t-test). Reasons for discontinuation of wear are reported. NEI VFQ-25 composite score increased for patients wearing PROSE devices at 6 months (D=+26 points, $p<0.001$, mean=85) with no significant decline after five years (D =-3 points, p=0.73).

Conclusions: PROSE treatment offers continued benefit, as defined by continued device wear and visual functioning at 5 years, to the majority of oGVHD candidates who were dispensed devices. PROSE treatment is characterized by long-term success in the management of Ocular Graft Versus Host Disease.

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Sclerodermatous Chronic Gvhd in Patients Receiving Tyrosine Kinase Inhibitors after Allogeneic Hematopoeitic Stem Cell Transplant

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Background: Sclerodermatous GVHD (sclerosis) is seen in approximately 20% of patients who received initial systemic treatment for chronic GVHD after allogeneic HCT (Inamoto et al. Blood 2013). Published reports suggest up regulation of PDGFR (platelet derived growth factor receptor) and TGF-β (transforming growth factor-β) pathways in patients with sclerosis. Both pathways are subject to inhibition by imatinib. We probed our database to explore if TKI use post HCT, will reduce the incidence of sclerosis in patients with CML and Ph+ALL.

Methods: Eighty-nine consecutive patients with CML (n=41) or Ph+ALL (n=48) who underwent allogeneic HCT between 2005 to 2010 were included for analysis. Average age for transplant was 44 years (range 18-62) All patients received GCSF-mobilized PBSC from sibling (n=49) or unrelated donors (n=40). A majority of our patients (n=74) received fully myeloablative conditioning regimens (FTBI with Cytoxan or VP-16: n=56, TMLI based regimens n=3, and Bu/Cy: n=15) while the remaining 15 patients received reduced intensity conditioning (Flu/Mel: n=14, Clo/Mel: n=1). Post transplant GVHD prophylaxis was with sirolimus/tacrolimus in 53 (60%), tacrolimus/MTX in 13 (15%), and tacrolimus/sirolimus/ MTX in 11 (12%) patients. Median follow up duration was 30 months (Range 0.03-84.8 months).

Results: 55 patients (62%) received TKI therapy post transplant while 34 patients (38%) did not receive TKI due to- cytopenias (45%), TKI intolerance or resistance (27%), GVHD (9%), infections (6%), and/or LFT abnormalities (6%). Median time to start TKI post-transplant was 1.9 months (range: 0.7 – 17.9 months). The median duration of TKI therapy was 9.1 months (range 0.1- 89.4 months). Thirteen of 59 surviving patients are currently on TKI therapy at last follow up.

The cumulative incidence of grade II-IV acute GVHD in this patient cohort was 47% (Grade III/IV: 17%). The incidence of chronic GVHD in the entire group was 76% (limited: n=6, extensive: n=62). Eight of 55 patients exposed to TKI therapy post transplant developed sclerosis with the median onset time of 13.8 months (range 10.3-33.1 months). Sclerosis occurred in 5 patients during TKI therapy whereas 3 patients developed sclerosis after discontinuation of TKI. Seven of 34 patients who did not receive TKI post-HCT developed sclerosis with median onset of 17.1 months (range 6.7-53.7 months). The 2-year cumulative incidence of sclerosis was 9.2% (CI: 3.9-21.2%) for the TKI exposed group and 14.8% (CI: 6.6-33.4%) in the non-TKI group ($p = 0.69$).

Conclusions: To our knowledge, this is the first cohort study to describe the incidence of sclerosis in patients who received TKI post-HCT. The incidence of sclerosis appeared consistent with the reported rate in the literature. At the power for this analysis, statistical significance- favoring TKI use post HCT to reduce incidence of sclerotic cGVHD, was not achieved.

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Missing HLA C Group 1 Ligands in Patients with AML and MDS Is Associated with Reduced Risk of Relapse and Improved Survival after Allogeneic STEM CELL Transplantation (SCT) with Fludarabine and Treosulfan Reduced Toxicity Conditioning

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